D R A F T

New Jersey Clean Cities Program

2004 Program Plan Update

D R A F T

TABLE OF CONTENTS

I. Introduction

As one of the country's most densely populated and heavily industrialized states, New Jersey faces air pollution problems second only to those in the Los Angeles metropolitan area. In December, 2003, the U.S. Environmental Protection Agency (EPA) announced its intention to designate the entire State as out of compliance with the National Ambient Air Quality Standards (NAAQS), the agency's health-based standards for ozone. Continued non-compliance with these standards could result in Federal sanctions, including the withholding of Federal highway funds, and will pose a threat to public health, the environment and the economic vitality of the state. The EPA also announced that seven of New Jersey's counties rate among the 25 worst in the nation for air toxics, emitted primarily by cars and trucks.

The nation's dependence on imported petroleum has continued to worsen in the years since the energy crises of the 1970's, as shown in Figure 1, below. New Jersey is even more dependent on imported petroleum than the nation as a whole.

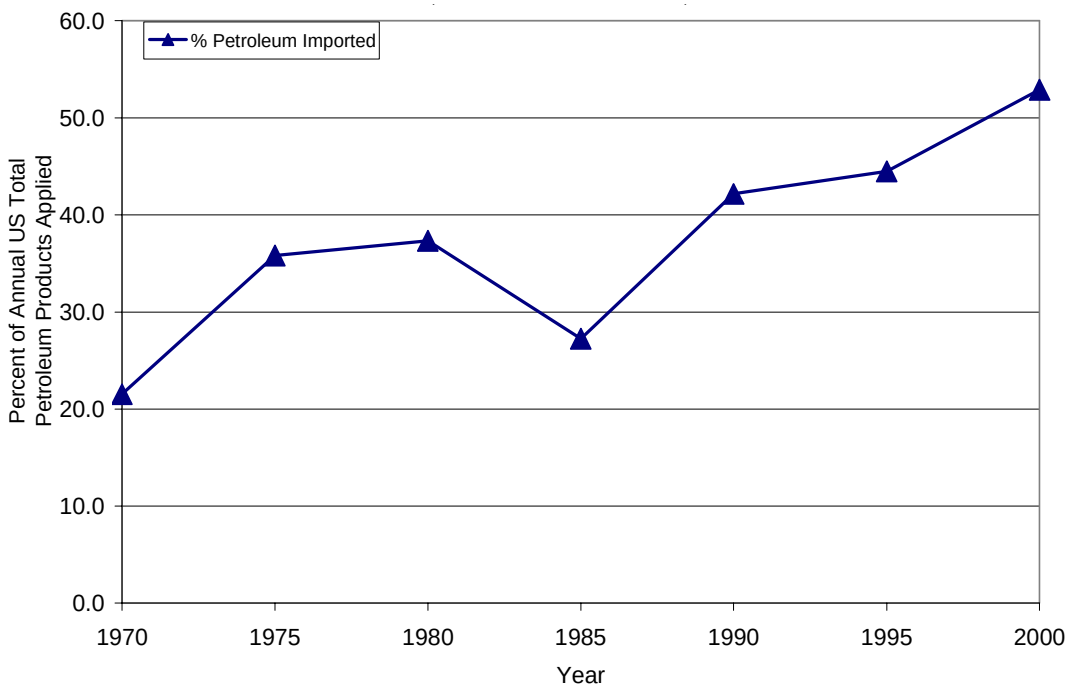

Figure 1: U.S. Net Imported Petroleum as % of Total U.S. Petroleum Usage, 1970-2000 (Source: U.S. DOE EIA AER2002 Table 5.1)

In addition, New Jersey has experienced an increase in petroleum fuel consumption between 1997 and 2002, from 13.5 million gallons/day to 14 million gallons per day.

New Jersey's continued economic security requires that we deal with the problems of poor air quality and dependence on imported fuel. The U.S. Department of Energy's Clean Cities Program offers a means of addressing both of these issues.

II. Clean Cities Overview

The Clean Cities Program is a voluntary Federal program designed to accelerate and expand the use of alternative fuel vehicles and related refueling infrastructure in communities throughout the country. Development of the Clean Cities program was authorized by the Energy Policy Act (EPAct) of 1992. Alternative fuels include the following:

- Natural gas
- Propane
- Ethanol
- Electricity
- Biodiesel
- Hydrogen

The Clean Cities Program encourages local governments and other organizations to form public/private partnerships that will lead to the development of a sustainable alternative fuels program. The underlying goals of the Clean Cities Program are **domestic energy security** and **air quality improvement**.

The Energy Policy Act of 1992

The Energy Policy Act of 1992 (EPAct) required the use of alternative fuel vehicles in state fleets, beginning in Model Year 1997. Similar requirements pertain to federal fleets and alternative fuel provider fleets of 20 or more light-duty vehicles that are used primarily within a Consolidated Metropolitan Statistical Area (CMSA), and are centrally fueled or capable of being centrally fueled. Several titles of the Energy Policy Act focus on the use of alternative fuels as a means of reducing our dependence on imported oil. A further benefit of using alternative fuel vehicles (AFVs) is that they generally emit fewer hydrocarbons and less carbon monoxide than gasoline or diesel powered vehicles, resulting in improved air quality.

All 21 of New Jersey's counties, encompassing two CMSAs, are covered by EPAct requirements. The 13 New Jersey counties comprising the original North Jersey Clean Cities Program area are part of the New York-Northern New Jersey-Long Island CMSA, as is Mercer County. Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester and Salem Counties are part of the Philadelphia – Wilmington – Atlantic City CMSA. EPAct covered fleets in New Jersey include the N. J. State government fleet, U.S. Postal Service, U.S. General Services Administration, Public Service Electric & Gas, New Jersey Natural Gas Company and Elizabethtown Gas Company/NUI.

III. New Jersey Clean Cities Program Development and History

A. Background

The New Jersey Board of Public Utilities (NJBPU), in conjunction with the N.J. Departments of Environmental Protection and Transportation, several natural gas utilities, local governments and private sector businesses, initiated the development of the North Jersey Clean Cities Program in 1996. The program was officially designated by the U.S. Department of Energy on October 30, 1997. Initially, efforts were focused on coordinating the fleet acquisition requirements of EPAct and the Clean Air Act (CAA), enabling the State to meet the air quality improvement goals of the CAA and the energy security goals of EPAct at the least cost to New Jersey residents. From its inception, New Jersey's Clean Cities Program has been fuel neutral and has encouraged the use of a variety of alternative fuels as defined by EPAct.

In the six years since the North Jersey Clean Cities Program was officially designated by the U.S. Department of Energy (DOE), there have been a number of changes in the coalition's alternative fuel vehicle activity. During 1999-2000, the State government undertook a fleet revitalization program that resulted in the purchase of approximately 1100 AFVs during a 2-year period. Those purchases were subsidized by Petroleum Violators Escrow (PVE) account monies, known in New Jersey as Petroleum Overcharge Reimbursement Fund (PORF) monies. There is little PORF funding remaining, however. In addition, the recent stock market problems and the terrorist attacks of September 11, 2001 resulted in the State Treasury seeing a drop-off in revenues. One result of this has been a dramatic reduction in State government vehicle purchases, including AFVs.

Other recent developments in New Jersey, such as the deregulation of the utility industry, have also had a negative impact on AFV usage in the state. Deregulation resulted in the formation of unregulated utility subsidiaries, and the exemption of many previously covered fuel provider fleets from EPAct mandates. Deregulation also resulted in the State's natural gas utilities reducing their levels of participation in alternative fuel programs.

There have been other recent positive signs, however, including an upsurge in interest in the State's AFV Rebate Program and Biodiesel Rebate Program (see p. _____) from municipalities throughout the State, and the successful activities of the NGV Working Group (see p. ___) Together, these recent changes have resulted in the need to reassess the direction of the program, as discussed below.

B. Future Direction

With the submission of this Program Plan revision, we are proposing to expand the North Jersey Clean Cities program area to include all 21 counties in the State of New Jersey, and to change the coalition name to the "New Jersey Clean Cities Program."

New Jersey's counties run the gamut from dense urban environments to suburban counties to low-density rural communities and shore counties, providing countless opportunities to introduce AFVs, hybrid-electric vehicles, neighborhood electric vehicles and renewable, American fuels to both the public and private sectors throughout the State.

Expanding the coalition to include the eight most southerly counties (Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer and Salem) will result in a relatively small increase in the number of people in the NJCCP area, as the 13 northern counties comprise 75% of the state's population. However, the eight southern counties have some of the fastest population growth rates in the state.

As the southern counties also contain a large portion of the state's agricultural industry, the NJCCP will be able to work with farm communities to encourage the use of locally grown crops to produce renewable fuels such as ethanol and biodiesel. Several strong, new stakeholders are located in the southern counties. The Medford Twp. Board of Education, in Burlington County, has been using biodiesel fuel since 1997, and has been active in encouraging other school districts and local governments to consider using biodiesel. Garden State Ethanol is in the process of obtaining local approvals to construct a 40 million gallon a year ethanol facility in Salem County that will utilize locally-grown corn.

A number of current NJCCP stakeholders are also active statewide, and have been working with municipal and county governments in the southern portion of the state to encourage the use of AFVs. The construction on two new, large CNG stations at N.J. Department of Transportation (NJDOT) facilities, located in Mercer and Camden Counties, is nearly complete, and the potential exists to allow local governments to refuel at those stations.

DOE's recent inclusion of idle reduction technologies to the Clean Cities portfolio of options also opens up possibilities for projects at truck stops along the New Jersey Turnpike, which runs the length of the state.

For all of the above reasons, we believe that the New Jersey Clean Cities Program will be a stronger, more effective program by including the eight southern counties in the coalition.

IV. Ongoing New Jersey Alternative Fuel Vehicle Projects and Initiatives

Current AFV and alternative fuel projects are described in this section. Several of the NJCCP stakeholders have activities in more than one county and are listed below as "Regional" participants. Other projects have been grouped according to the county in which they are located.

This listing includes activities being undertaken in the 13 northern New Jersey counties that comprised the original NJCCP, i.e., Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union and Warren Counties. Activities in the 8 counties proposed for inclusion in the expanded New Jersey Clean Cities Program, i.e., Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer and Salem, have also been included.

The primary alternative fuels now in use throughout New Jersey are natural gas and biodiesel. Hybrid-electric vehicles have also been included in the current Program Plan because of their low emissions, their ability to displace petroleum and help meet EPAct goals, and the role they can play in DOE's expanded portfolio of options for the Clean Cities Program.

A. Ongoing AFV Projects

Regional

- ***New Jersey Transit Corporation:***
  - Mercer County - 5 compressed natural gas (CNG) transit buses are in operation in the Trenton/Ewing/Hamilton area, in Mercer County, in central New Jersey. They refuel at the State of New Jersey's CNG station in Ewing Twp.
  - Monmouth County - 76 CNG "cruiser" buses currently operate out of the New Jersey Transit garage in Howell Twp., Monmouth County. Two 1325 SCFM compressors were installed there in December, 1999, and a third 1400 SCFM compressor was added in November, 2000.

- ***The Port Authority of New York and New Jersey:***
  - Currently has 14 electric vehicles (EV), 30 hybrid electric vehicles (HEV), 204 CNG, and 3 liquefied propane gas (LPG) vehicles that operate at Port Authority locations in New York and New Jersey, including Kennedy, LaGuardia and Newark airports. Plans call for adding 30 CNG vehicles a year for the next 5 years.
  - Submitted application to participate in the Biodiesel Fuel Rebate Program. A total of 67 heavy-duty vehicles and 46 pieces of diesel equipment will use approximately 50,000 gallons/year of B20 at Newark Airport.

- ***Public Service Electric & Gas:***
  - Operates 77 dedicated CNG and 228 bi-fuel CNG vehicles.
  - Currently maintains nine CNG refueling stations for use by its own fleet vehicles only. The stations are located in:
    - Bergen County- Oakland Township
    - Burlington County – Burlington and Moorestown
    - Passaic County - Clifton
    - Essex County – Orange

- Hudson County- Jersey City
- Camden County – Audubon
- Middlesex County – New Brunswick, and
- Somerset County - Plainfield

- ***State of New Jersey***

- ***US Postal Service***
  - The US Postal Service has 173 bi-fuel CNG vehicles in operation in New Jersey. Due to a lack of CNG refueling infrastructure, none of the vehicles are currently using CNG. The table below details the counties where the bi-fuel CNG vehicles are located. Likewise, the Postal Service has 509 E85 capable vehicles but E85 is not currently available in New Jersey.

County	CNG Capable Vehicles
Middlesex	*70*
Ocean	*45*
Passaic	*38*
Somerset	*20*
Total	**173**

Projects by County

Bergen County

- ***Bergen County government (Hackensack)*** – The County's Community Transportation Department currently operates 5 compressed natural gas vehicles for the Meals on Wheels program. A 50 SCFM fast-fill CNG refueling station has been installed at the County Department of Public Works facility in Hackensack. Refueling agreements have been put in place for State and utility fleet vehicles.
- ***Kearny Town*** – The town currently operates 2 Chevy Cavalier bi-fuel CNG vehicles, as well as a GMC Sierra 2500 HD pickup truck and a Honda Civic GX. A FuelMaker with fast-fill capability has been installed at the DPW Garage. Kearny is pursuing inter-local agreements with surrounding municipalities for use of the CNG station.
- ***Paramus Borough*** – Installed a FuelMaker slow-fill CNG refueling appliance; operates 2 Honda Civic GXs.
- ***Park Ridge Borough*** – DPW operates 1 Toyota Prius hybrid-electric vehicle.
- ***Ridgewood Village*** – DPW operates 2 Toyota Prius hybrid-electric vehicles.

Burlington County

- ***Burlington County Eco-Complex*** – Currently participating in a program to use purified landfill gas from the County landfill as a fuel for waste hauling trucks. The fuel will be used as LNG. This program will address the issues involved with full-scale commercialization of the technology, and will include economic and financial analyses.
- ***Medford Township School District*** – Has operated half its fleet (approximately 20 school buses) on B20 (a mixture of 20% biodiesel and 80% petroleum diesel) since November, 1997, the first school district in the country to do so. Medford has signed a Memorandum of Understanding (MOU) with the BPU to participate in the Biodiesel Fuel Rebate Program and expand the use of B20 to all diesel vehicles in its fleet. Medford anticipates using 50,000 gallons a year of B20.

Camden County

- ***City of Camden Police Department*** - Operates 14 dedicated CNG Ford Crown Victoria sedans, on loan from the N.J. State Police. Vehicles refuel at PSE&G's CNG station located in Audubon.
- ***Gloucester Township*** – Operates 2 dedicated CNG cargo vans and a FuelMaker refueling appliance.

Cape May County

- ***Cable Car Concepts, Cape May*** – Manufactures trolley type truck bodies and installs alternative fuel systems on vehicle chassis. Trolleys are used as local tourist and excursion vehicles.

Essex County

- ***Montclair Township*** – Installed a FuelMaker slow-fill CNG refueling appliance and operates 6 Honda Civic GXs.

Hudson County

- ***Guttenberg Town*** – Installed a FuelMaker slow-fill CNG refueling appliance; operates 1 Honda Civic GX.
- ***Hudson County Improvement Authority*** – Operates 1 CNG Chevy 8-passenger van; refuels at Bergen County DPW CNG station.
- ***Jersey City*** – Signed Memorandum of Understanding (MOU) with BPU to participate in the Biodiesel Fuel Rebate Program by using biodiesel fuel (B20) in city vehicles. City will be reimbursed for incremental costs of approximately 104,000 gallons of B20 over a 2-year period.

Mercer County

- ***City of Trenton Police Department*** – Operates 14 dedicated CNG Ford Crown Victoria sedans, on loan from the N.J. State Police. Vehicles refuel at the State's CNG station at NJDOT headquarters in Ewing, Mercer Co.
- ***College of New Jersey*** – Operates 5 Electruk ET-150 facility maintenance vehicles.
- ***Princeton University*** – Two CNG shuttle buses (Ford E-450 dedicated cutaway vans) were delivered in November, 2003, along with a FuelMaker with fast-fill capability. A CNG Zamboni is in use at the University ice rink. The fleet also includes one Toyota Prius hybrid-electric vehicle.

Middlesex County

- ***Air and Gas Technologies*** – CNG refueling equipment supplier currently services over 40 CNG stations in New Jersey, Pennsylvania and New York. They operate 4 bi-fuel CNG vans and 1 CNG forklift. Vehicles are refueled on-site using a FuelMaker with fast-fill capability.
- ***Old Bridge Municipal Utilities Authority*** – Installed a FuelMaker slow-fill CNG refueling appliance; operates 2 Ford F-150 bi-fuel CNG vehicles.
- ***Rutgers University*** – Installed a FuelMaker slow-fill CNG refueling appliance and operates 4 Honda Civic GXs and 2 Chevy Cavalier bi-fuel CNG vehicles.

Monmouth County

- ***Belmar Borough*** – Operates 2 Ford F-150 bi-fuel propane pickup trucks.
- ***Monmouth County Park System*** – Operates 1 GEM electric vehicle.
- ***Motors Fleet Management*** – A franchised dealer for the sale of Chevrolet, Dodge and Ford AFVs, as well as Toyota Prius hybrid-electric vehicles, Motors Fleet has numerous AFV contracts with the State of New Jersey, and offers AFV service and mechanics training.
- ***New Jersey Natural Gas Corp. (NJNG)*** - NJNG currently operates approximately 20 light-duty CNG vehicles, as well as 3 heavy-duty bi-fuel CNG trucks. Future plans are to use banked AFV credits to offset future vehicle purchases.
- ***Pro Energy Corporation*** – Company converts vehicles to operate using CNG and LPG.

Ocean County

- ***Dover Township*** – Parking Authority operates 1 Cushman 484 ZEV electric utility vehicle.
- ***Lakehurst Naval Warfare Center*** – Operates 61 bi-fuel CNG vehicles and 2 dedicated CNG 15-passenger vans.

- ***Ocean County government (Toms River)*** – Operates one light-duty CNG vehicle; two FuelMakers have been installed.

Passaic County

- ***William Paterson University (Wayne)*** – Signed MOU with BPU to participate in Biodiesel Fuel Rebate Program by using biodiesel fuel (B20) in campus vehicles. University will be reimbursed for incremental costs of approximately 12,000 gallons of B20 over a 2-year period.

Salem County

- ***Garden State Ethanol*** – A farmer's consortium organized to create additional markets for local corn crops, Garden State Ethanol is in the process of obtaining local approvals to construct a 40 million gallon a year ethanol manufacturing facility.

Union County

- ***Elizabethtown Gas Company/NUI (ETG) -*** The state's first CNG filling station (50 SCFM) is still in operation at ETG's Green Lane facility in Union Township. ETG now has 57 CNG vehicles in its fleet, as well as 3 tow-behind compressors that operate on CNG and 4 CNG forklifts.

B. DOE-funded Contractor Support

In the past year, with the addition of DOE-funded contractor support services, the pace of NJCCP activity has been increased. Table 1, below, summarizes some of the recent activities undertaken by the State's Clean Cities contractor, Antares Group.

Date	Meeting Type	Purpose	Guest/Comment	Location
Dec 02	NJCCP	Quarterly Meeting	NJBPU Comm. Jack Alter	Newark, NJ
Jan 03	Advocacy	Assembly Support	Assemblyman Gordon Johnson	Englewood, NJ
Feb 03	Regional DOE	Networking		Philadelphia. PA
Mar 03	Advocacy	Recruitment	Spoke at Work Truck Meeting	Parsippany, NJ
Mar 03	NJCCP	Quarterly Meeting	Assemblyman Gordon Johnson	Newark, NJ
April 03	Ceremony	Networking	NYC Clean Cities Designation	NYC City Hall
May 03	Advocacy	Membership Recruitment	Spoke at NJ Motor Truck Association	NJ
Jun 03	NJCCP	Quarterly Meeting	Solectria and GEM	Newark, NJ
June 03	Annual USDOE Clean Cities	Networking		Palm Springs, CA
July 03	Advocacy	Passaic County Support	Met with County Planner and Freeholders	Paterson, NJ
Sept 03	National	Annual NGVC Meeting	Represented NJCCP	Las Vegas, NV
Sept 03	Advocacy	William Paterson University	Met with Facilities Manager	Wayne, NJ
Oct 03	Advocacy	NJ Propane Gas Association	Guest Speaker at NJPGA annual meeting	Iselin, NJ

Table 1: Clean Cities Coordinator – Public Activities 2003

Antares prepared a newsletter after three of the NJCCP meetings, informing the more than 250 names on the NJBPU/NJCCP mailing list of the program's activities and other events important to Clean Cities stakeholders and potential stakeholders. Copies of the three newsletters are attached.

C. NGV Demonstration Program

In the past several years, members of the NGV Working Group have initiated an NGV Demonstration Program. The key stakeholders in this effort have been Air & Gas Technologies (a CNG equipment supplier), American Honda Motor Co., FuelMaker Corp., Honda of Princeton, Public Service Electric and Gas (PSEG) and, until recently, Ford Motor Company. Participants in the Demonstration Program receive one or more Honda Civic GXs or Ford F-150 CNG pickups on loan for up to one month, and a FuelMaker refueling appliance is installed at the participant's location.

The following table lists the participants to date, and the AFV and FuelMaker purchases resulting from the demonstration program.

Table 2. CLEAN CITIES NGV/CNG DEMO PROGRAM

	RESULTS	
Location	**Vehicles**	**Station**
Jersey City		
Wayne		
Montclair	6 - Honda GXs	FuelMaker - Slow-fill
Hackensack		
North Bergen		
Kearny	2 - Chevy Cavaliers	FM Combo Slow & Fast-fill
Princeton University	2 - E450 Shuttlebuses	FuelMaker Quad slow-fill
Middlesex County		
Paramus	2 - Honda GXs	FuelMaker - Slow-fill
Guttenberg	1 - Honda GX	FuelMaker - Slow-fill
Ramapo College	1 - Ford 8-pass van	FuelMaker - Slow-fill
Rutgers University	6 - Honda GXs, 2 Cavaliers	FuelMaker - Slow-fill
N. W. Bergen County Utilities Authority	3- Ford Vans	FuelMaker - Slow-fill
Mahwah		
Montvale*		
NJ Meadowlands Commission*		
Cape May		
Wildwood		

* currently hosting demo program

NOTE: The purchase/lease of NGVs involves a long lead time and is impacted by available budget.

D. Exhibition at Annual Statewide Conferences

The NJCCP has exhibited at two major statewide conferences held in Atlantic City for several years: the New Jersey State League of Municipalities (LOM) Conference, held each November, and the TransAction Conference, held in April. At both events, the benefits of alternative fuel vehicles, the Clean Cities Program and the NGV Demonstration Program are stressed. At the 2003 LOM conference, a Honda Civic GX, a Ford F-150 dedicated CNG pickup and a FuelMaker refueling appliance were all displayed at the Clean Cities booth. Approximately 40 leads were generated, most from municipal and county governments interested in beginning alternative fuel vehicle programs.

There are other statewide conferences held each year, including the New Jersey Conference of Mayors and the School Boards Conference, and the NJCCP is looking into exhibiting at one or more of these, as well.

V. New Jersey Alternative Fuel Vehicle Funding and Incentive Programs

A. Alternative Fuel Vehicle (AFV) Rebate Program

Several years ago, the New Jersey Board of Public Utilities, Office of Clean Energy, worked with the New Jersey Department of Transportation to secure $500,000 in Federal Congestion Mitigation and Air Quality Improvement Program (CMAQ) funding to expand Clean Cities activities to non-attainment areas throughout the state. This funding was used to establish New Jersey's Alternative Fuel Vehicle Rebate Program. This program provides rebates to local government entities, including counties, municipalities, governmental authorities and school districts, to offset the incremental costs of acquiring alternative fuel vehicles, including both conversions and new vehicle purchases.

Note: Although the DOE does not consider hybrid-electric vehicles to be AFVs, they were included as eligible vehicles under New Jersey's AFV Rebate Program because of their use of electric power, their high fuel efficiency and the contribution they can make toward meeting the EPAct goals of petroleum displacement. Under this program, neighborhood electric vehicles (NEV) are also eligible for rebate funding, even though they are not full-size vehicles, because of the petroleum displacement and air quality improvement benefits that can be realized from their use in certain niche markets.

Rebate amounts are as follows:

Light Duty Vehicles (under 8,500 lbs. GVWR)

- Up to $4,000 toward the incremental cost of a dedicated AFV or hybrid-electric vehicle
- Up to $2,000 toward the incremental cost of a bi-fuel AFV

Medium Duty Vehicles (8,500 – 14,000 lbs. GVWR)

- Up to $7,000 toward the incremental cost of a dedicated AFV or hybrid-electric vehicle
- Up to $4,000 toward the incremental cost of a bi-fuel AFV

Heavy Duty Vehicles (over 14,000 lbs. GVWR)

- Up to $12,000 toward the incremental cost of a dedicated AFV or hybrid-electric vehicle
- Up to $6,000 toward the incremental cost of a bi-fuel AFV

Although the rebate program was introduced in November 1999, interest in AFVs by local governments in New Jersey has been building more recently, in part due to the efforts of the NGV Working Group and the NGV Demonstration Program. As of March 1, 2004, a total of $271,000 in rebates has been awarded to 17 different applicants, for the purchase of the following 70 vehicles:

- 25 dedicated CNG
- 7 bi-fuel CNG
- 2 bi-fuel propane
- 29 hybrid-electric
- 7 small electric

Approximately $229,000 in AFV Rebate Program funding remains available. It is anticipated that this funding will be exhausted within the current year.

B. Biodiesel Fuel Rebate Program

In July, 2003, the Office of Clean Energy introduced New Jersey's Biodiesel Fuel Rebate Program. This program is funded by $500,000 in Petroleum Violators Escrow (PVE) account monies, known in New Jersey as Petroleum Overcharge Reimbursement Fund (PORF) monies. The Biodiesel Fuel Rebate Program provides rebates to local government entities, including counties, municipalities, governmental authorities and school districts, for the incremental costs of purchasing biodiesel fuel, in lieu of petroleum diesel.

As of March 1, 2004, five applications have been submitted, for programs at the Medford Twp. Board of Education, Jersey City, Teaneck Twp., William Paterson University in Wayne, N.J. and the Port Authority of New York and New Jersey. A total of $187,400 in funding has been committed for these projects. Several other municipalities have requested applications, and we anticipate that they will also apply and be accepted into the program.

C. Alternative Fuel Infrastructure Program

In July, 2003, the Office of Clean Energy introduced New Jersey's Alternative Fuel Infrastructure Program, also funded by $500,000 in PORF monies. This program will

rebate 50% of the costs of purchasing and installing infrastructure used for refueling AFVs, up to a maximum of $50,000 per applicant. Local government entities, including counties, municipalities, governmental authorities and school districts are eligible for rebates under this program. As of March 1, 2004, two applications for infrastructure rebates have been submitted.

Rebate Program	Amount Remaining	Purpose
AFV	$229,000	Supports Purchase of AFVs and Hybrids by paying a portion of incremental vehicle costs.
Biodiesel	$319,000	Provides incremental cost of purchasing biodiesel fuel in lieu of 100% petroleum diesel
Infrastructure	$500,000	Funds 50% of cost of purchasing and installing Alternative Fuel Refueling Infrastructure

Table 3. NJCCP Local Government Rebate Programs

VI. Structure of the New Jersey Clean Cities Program

A. The Clean Cities Coordinator

The Clean Cities Coordinator administers the NJCCP, and reports to the Steering Committee. From the inception of the NJCCP in 1997, the Coordinator position has been located at the NJBPU. Ellen Bourbon, the NJBPU's Alternative Fuels Project Manager, served as Coordinator from 1997 through the fall of 2002. Initially, the goal was for the NJBPU to support the Program Coordinator position until another stakeholder was able to assume that responsibility; however, funding and time constraints have prevented any of the other stakeholders from taking on the Coordinator role.

In 2001, the NJBPU applied for a DOE grant for Clean Cities Coordinator support under the State Energy Program's Special Projects solicitation. DOE awarded a $25,000 grant to the NJBPU, and the NJBPU provided $25,000 in matching funds. After going out to bid, the NJBPU awarded a contract for Coordinator support to Antares Group, Inc., in October, 2002. Art Vatsky of Antares Group Inc. has been serving as Coordinator. Greg Wilcox, also with Antares Group, Inc., is serving as Deputy Coordinator.

In 2003, the NJBPU applied for and was awarded an additional $20,000 in funding from DOE, for coalition support. As required by State procurement regulations, the NJBPU will go out to bid for those services once again, in early 2004.

Coordinator Responsibilities

The NJCCP Coordinator's general responsibilities are listed below:

- Coordinate and document coalition meetings and activities;
- Maintain database of stakeholders, local fleets, AFVs and refueling infrastructure;
- Act as liaison between the Steering Committee, Working Groups and DOE;
- Disseminate information to stakeholders through newsletters, e-mails, phone contacts;
- Monitor federal/state/local legislative and incentive information and disseminate to Clean Cities coalition members;
- Assist coalition members with public education activities and new stakeholder recruitment;
- Assist with overall implementation and periodic updates of Program Plan and MOU;
- Represent the NJCCP at local functions and DOE events.

B. The Steering Committee

In 1996, when the NJCCP was initiated, there was a very active group of stakeholders that participated in the development of the Program Plan. Thirty stakeholders signed the Memorandum of Understanding at the designation ceremony held in October, 1997. All of these signatories were included as members of the original Steering Committee.

In the more than six years since designation, a number of new stakeholders have become involved with the NJCCP, while some of the original stakeholders are no longer active. As part of the MOU renewal process, the NJCCP examined successful Clean Cities coalitions from across the country for examples of effective steering committee structures.

Based on a review of other Clean Cities programs, and additional stakeholder input, the NJCCP has established a new Steering Committee structure. The revised structure is intended to reflect the different and sometimes competing interests of the various stakeholders. Key stakeholders that have been actively involved with the NJCCP since its inception will continue to play a role in the further development of the NJCCP. Interaction between the various groups at the Steering Committee level may help lead to more active member participation and more involved decision-making.

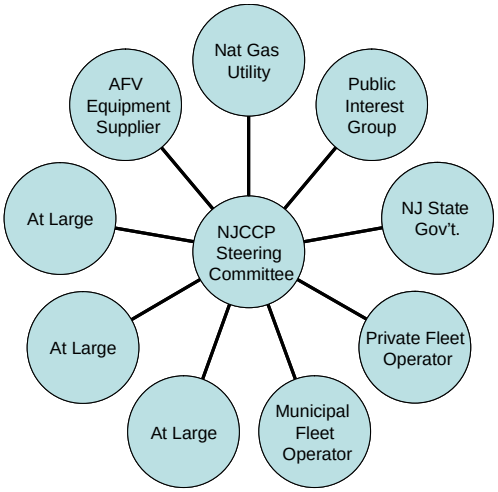

Figure 2: NJCCP Steering Committee Composition

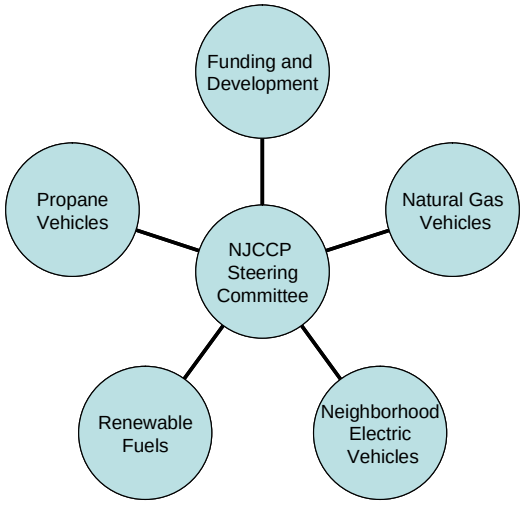

Figure 3: NJCCP Working Groups

Steering Committee Composition: The Steering Committee will provide direction and oversight for the NJCCP, and will be composed of 9 NJCCP stakeholders representing the diverse membership of the coalition. In order to ensure objective and balanced representation, as well as fuel neutrality, the Steering Committee will be composed of the following stakeholders:

- 1 natural gas utility member
- 1 public interest or non-profit group member
- 1 State government member
- 1 local government or legislative member
- 1 municipal or county fleet operator
- 1 OEM vehicle dealer or manufacturer, AFV equipment supplier or alternative fuel supplier
- 3 at-large members who may be representatives of any group

Each member will have one vote on the steering committee. A Steering Committee Chair will be elected by the members. See Figure 2.

Method of election: Initially, the Steering Committee will be appointed, with elections being held after one year, at an NJCCP quarterly meeting. In order to be eligible to vote, a stakeholder must sign the NJCCP MOU and be a member of the NJCCP for at least one year, prior to the elections.

Term: Members of the Steering Committee will serve for 2-year terms.

C. Working Groups

Five working groups, representative of current NJCCP activities and interests, have been set up, as shown in Figure 3.

1) Funding and Project Development

The Funding and Project Development Working Group will identify possible sources of funding for Clean Cities activities, and will prepare and submit proposals for financial assistance. In particular, the Funding and Project Development Working Group will seek funding from the State Energy Program (SEP), various DOE and EPA solicitations, and the Congestion Mitigation and Air Quality Improvement Program (CMAQ).

The Funding and Project Development Working Group members are as follows:

NJCCP Coordinator
EPA Region 2
_____
_____
_____

2) Natural Gas Vehicles

The Natural Gas Vehicle (NGV) Working Group has been active in the NJCCP for several years. Members of this working group represent utilities, Original Equipment Manufacturers (OEMs) and refueling equipment suppliers. The NGV Working Group initiated the NGV Demonstration program in New Jersey, which has resulted in over a dozen municipalities and state colleges testing a variety of natural gas vehicles. The NGV Working Group has focused mainly on light–duty vehicles to date; however, there has recently been an increase in interest in natural gas shuttle buses. The NGV Working Group will include this segment of the market, as well.

The NGV Working Group members are as follows:

- Air and Gas Technologies
- American Honda
- FuelMaker Corporation
- Honda of Princeton
- Motors Fleet Management
- Public Service Electric and Gas

3) Neighborhood Electric Vehicles

Neighborhood electric vehicles are small 2-4 passenger vehicles, similar in size to golf carts, and capable of operating at speeds up to 25 mph. NEVs are finding a niche in

many states as delivery and service/support vehicles, as well as a means of transportation for short, around-town trips. New Jersey has a large shore-based vacation industry and many retirement communities, making NEVs an attractive alternative to gasoline powered vehicles. Using full size automobiles for short trips wastes energy and generates high emissions because the vehicles are operated while the engines are still cold and the exhausts catalysts are not up to their working temperature.

Legislation has been passed in more than 30 states allowing NEVs to operate on state roads with speed limits of 35mph or below. NJCCP members initiated discussions in 2003 with a member of the New Jersey State Assembly's Transportation Committee regarding the introduction of similar legislation. The NEV Working Group will expand these efforts, with the goal of having NEV-friendly legislation introduced and passed by December, 2004.

The NEV Working Group Members are as follows:

- Global Electric Motorcars (GEM), a subsidiary of DaimlerChrysler AG
- Remsen Dodge
- _____
- _____
- _____

4) Renewable Fuels

The use of renewable fuels, such as biodiesel and ethanol, can create both farming and industrial jobs in New Jersey, while lowering our dependence on foreign oil. Biodiesel and ethanol (E85) are not competing fuels since biodiesel is used in compression ignition (diesel) vehicles only and E85 vehicles are generally light duty spark ignited vehicles. State and local government agencies can purchase B20 (a blend of 20% biodiesel and 80% petroleum diesel) directly off state contract #T-1844. Plans are underway for a 40 million gallon ethanol production facility in Salem County that could be a local source of E85.

The Renewable Fuels Working Group will contact their counterparts in other Clean Cities coalitions for assistance in developing outreach programs to promote the use of biodiesel and E85 among the public and private sectors, including the off-road vehicle market. The group will also monitor and track federal and state legislation affecting the production and use of these fuels.

The Renewable Fuels Working Group includes:

- Garden State Ethanol
- World Energy Alternatives
- _____
- _____
- _____

5) Outreach

The Outreach Working Group will work with county and local governments, the state legislature, the State's 3 metropolitan planning organizations and private fleet managers to raise awareness of the Clean Cities goals of reducing our dependence on imported petroleum and improving air quality. They will encourage local governments to adopt resolutions and ordinances committing their communities to reducing their use of vehicular petroleum by incorporating AFVs, hybrid-electrics, fuel economy and idle reduction technologies wherever possible.

The Outreach Working Group members are:

- _____
- _____
- _____
- _____
- _____

6) Ad Hoc Working Groups

As needed, various working groups will be formed to focus on particular fuels or issues. Among the possible working groups that may form in the future are the following:

- Propane: The New Jersey Propane Gas Association was an original stakeholder of the NJCCP and was active in initiating a propane vehicle program for the State government fleet. While there is a limited choice of LPG engines available today, there is potential for growth in the medium duty truck and van category. New propane school buses have also been developed recently, and the GM Cutaway Chassis with a propane engine may fill the gap left by the exit of the Ford CNG cutaway chassis.
- Alternative Fuel School Buses: New Jersey currently has no school buses that operate using natural gas or propane. One factor contributing to this is New Jersey school bus specifications (notably the specifications for seat width) which differ from the specifications in the other 49 states. Until these specifications can be modified, there will likely be no AFV school buses operating in the state.
- Hydrogen: Barring several technological breakthroughs, the wide availability of hydrogen-powered motor vehicles is likely decades away. As the introduction of hydrogen vehicles draws nearer, coalition members may want to form a hydrogen working group to address issues such as fuel storage, refueling, etc.

Table 4 indicates the various niche markets that could be addressed by current and future working groups.

Market Niche/ Fuel	Existing Heavy-Duty	New Heavy-Duty	Transit (over 28')	Transit (under 28')	Existing Light-Duty	New Light-Duty	Small Service Vehicles
Natural Gas		X	X	X SI		X	
Biodiesel (B20)	X CI as-is	X	X CI as-is	X CI as-is			
Electricity							X
Ethanol (E85)					X E85 Models Only	X E85 Models Only	
Hybrid-Electric/ Hydrogen		X	X			X	
Liquified Propane Gas (LPG)	X SI Retrofit	X	X				

Table 4: NJCCP Public Sector Niches (Note: CI = Compression ignition (i.e. diesel engines, SI = spark ignition engines)

In addition to the Steering Committee and Working Group members, the NJCCP includes a number of other interested parties that are committed to increasing the number of alternative fuel vehicles in New Jersey. The NJCCP directory, which includes the addresses, phone and fax numbers of current Stakeholders and other interested parties, is included as Appendix D. Stakeholders are identified in the directory by an asterisk.

VII. Goals and Objectives of the North Jersey Clean Cities Program

A. Short Term Goals (1-year)

1) CMAQ Funding

Work with the North Jersey Transportation Planning Authority (NJTPA), the Delaware Valley Regional Planning Commission (DVRPC), the South Jersey Transportation Authority (SJTA) and county representatives to develop at least 1 AFV project proposal that utilizes available CMAQ funding in each region.

2) Outreach

Work with the NJTPA, DVRPC and SJTA to disseminate information on AFVs and available AFV rebate programs to county and local officials throughout the state, through their newsletters, regular meetings and targeted mailings. Encourage local governments to pass ordinances and resolutions committing to reducing their use of vehicular petroleum. There are 566 municipalities in the state, as well as 609 school districts. Table 5 indicates the number of local government agencies in New Jersey's 21 counties.

Number	County	Municipalities[1]	School Districts[2]	Population[3]
1	Atlantic	23	25	255,552
2	Bergen	70	77	884,118
3	Burlington	40	43	423,394
4	Camden	37	42	508,932
5	Cape May	16	19	102,326
6	Cumberland	14	16	146,438
7	Essex	22	22	793,133
8	Gloucester	24	28	254,673
9	Hudson	12	13	608,975
10	Hunterdon	26	29	121,989
11	Mercer	13	11	350,761
12	Middlesex	25	25	750,162
13	Monmouth	53	55	615,301
14	Morris	39	42	470,212
15	Ocean	33	30	510,916
16	Passaic	16	20	489,049
17	Salem	15	15	64,285
18	Somerset	21	22	297,490
19	Sussex	24	26	144,166
20	Union	21	23	522,541
21	Warren	22	26	102,437
	Total	**566**	**609**	**8,414,350**

Table 5: New Jersey County Government, School District and Population Statistics

3) NEV Legislation

Work with the State Legislature's Transportation Committee to have NEV legislation introduced and passed by December, 2004.

[1] Municipal Reference Guide: New Jersey 2003/2004 Edition. Towndata.com Network, Inc.
[2] The New Jersey Municipal Data Book, 2003 Edition. Information Publications
[3] Ibid. 2000 Census

4) Statewide Conferences

Continue to sponsor a Clean Cities booth at two or more of the following annual conferences:

- *New Jersey State League of Municipalities Conference* - This conference attracts approximately 10,000 state and local officials and is held each November in Atlantic City.
- *NJDOT TransAction Conference* - This statewide transportation conference is held each April in Atlantic City and attracts approximately 900 transportation officials from throughout the State
- *New Jersey Conference of Mayors* – Held each April, this conference targets the Mayors of New Jersey's 566 municipalities.
- *New Jersey School Boards Conference* – This conference is held each fall.

5) NGV Demonstration Program

The NGV Working Group will work to increase the number of participants in the NGV Demonstration Program, using leads generated at the League of Municipalities Conference and the Conference of Mayors. The primary target groups will be public colleges and universities, counties and municipalities, in order to take advantage of the rebate monies available to local government entities.

6) Advancing the Choice Event

In conjunction with a county government, hold an event targeted at local officials to promote the use of AFVs, alternative fuels and hybrid-electric vehicles.

7) Newsletters and Meetings

Continue to hold quarterly meetings and publish a quarterly NJCCP newsletter.

B. Long Term Goals (1 - 5 year timeframe)

1) Funding for Private Sector Projects

While the NJCCP has been successful in obtaining funding for public sector AFV projects, we do not yet have funding available for private sector AFV projects. There are hundreds of delivery truck fleets throughout New Jersey that are currently using diesel fuel that would benefit from access to biodiesel fuel at competitive prices. Likewise, we have identified private sector fleets that are interested in using CNG in their operations, but cannot switch to CNG without funding assistance. Assistance for the promotion of other alternative fuels, including E85 and propane, will also be investigated. The Funding and Project Development Working Group will take the lead in obtaining this funding.

2) Rebate Programs

Utilize available funding in the NJBPU's three rebate programs for AFVs, biodiesel fuel and refueling infrastructure. As those funds becoming fully expended, seek out additional funding sources to continue and expand the programs.

3) CNG Stations

Establish at least two new CNG refueling sites in New Jersey, accessible to state and local governments, and private fleets, if possible. Targeted areas are the City of Newark and the New Brunswick area of Middlesex County.

4) Renewable Fuel Blends

Introduce low blends of renewable fuels with petroleum fuels, such as B2, B5 and E10. In particular, develop a program to market these blends to New Jersey's farmers.

5) CNG School Buses

Initiate a natural gas school bus program in a New Jersey school district. To date, there are no CNG buses operating in New Jersey.

6) NJCCP Stakeholders

Increase the number of active NJCCP stakeholders. Efforts will be made to involve representatives of each of the 21 county governments covered by the NJCCP, as well as several municipalities from each county. Private fleets will also be targeted, with the goal of adding 5 private fleets a year as stakeholders.

7) Investigate Non-Profit Status

Many Clean Cities coalitions have opted to convert to 501(c) (3) non-profit organizations, to give them access to a wider range of funding sources. The NJCCP will investigate the benefits and drawbacks of this option.

8) E85

Once the ethanol plant has been established in Salem County, develop an E85 program involving a large New Jersey fleet.

9) Dual-fuel, CNG/diesel vehicles

Promote the use of dual-fuel, CNG/diesel heavy duty vehicles. This technology works by adapting the existing compression ignition engines in most heavy duty vehicles to use a small amount of diesel to ignite a main charge of natural gas. This results in cleaner

emissions at lower cost than would be required to change the engine to operate using only natural gas.

10) Idle Reduction Programs

Work with the NJDEP and NJDOT to develop idle reduction programs at several truckstops along the New Jersey Turnpike.